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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,756	02/10/2000	Wolfgang G. Eibach	UK999054	4338

25259 7590 04/10/2006	EXAMINER	
IBM CORPORATION	POLTORAK, PIOTR	
3039 CORNWALLIS RD.		
DEPT. T81 / B503, PO BOX 12195	ART UNIT	PAPER NUMBER
REASEARCH TRIANGLE PARK, NC 27709	2134	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

Office Action Summary	Application No.	Applicant(s)
	09/501,756	EIBACH ET AL.
	Examiner	Art Unit
	Peter Poltorak	2134

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>09 January 2006</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-5 and 7-11</u> is/are pending in the application.

4a) Of the above claim(s) <u>9</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-5, 7, 8, 10 and 11</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☒ Claim(s) <u>9</u> are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>10 February 2002</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All   b) ☐ Some *   c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. _____.

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☒ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the

fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection.

Since this application is eligible for continued examination under 37 CFR 1.114,

and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the

previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Applicant's submission filed on 1/09/06 has been entered.

Restriction to one of the following inventions is required under 35 U.S.C.

121:

I.   Claims 1-5, 7-8 and 10-11, drawn to a method and a system of a

        gateway controlling communication between two entities, classified

        in class 726, subclass 11.

II.   Claim 9, drawn to entities running gateway components used in

        inter-entity communication, classified in class 709, subclass 229.

Inventions a method and a system of a gateway controlling

communication between two entities related as subcombinations disclosed as

usable together in a single combination.

The subcombinations are distinct from each other if they are shown to be

separately usable. In the instant case, invention (I) a method and a system of a

gateway controlling communication between two entities does not need

particulars of two entities running gateway components and it can be

implemented in environment with any two basic entities, invention (II) has

separate utility such as entities running gateway components can communicate

without an additional gateway controlling communications across the link. See

MPEP § 806.05(d).

Because these inventions are distinct for the reasons given above and

have acquired a separate status in the art as shown by their different

classification, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the

search required for Group I a method and a system of a gateway controlling

communication between two entities is not required for Group II entities running

gateway components used in inter-entity communication, restriction for

examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must

include an election of the invention to be examined even though the requirement

be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected

invention, the inventorship must be amended in compliance with 37 CFR 1.48(b)

if one or more of the currently named inventors is no longer an inventor of at

least one claim remaining in the application. Any amendment of inventorship

must be accompanied by a request under 37 CFR 1.48(b) and by the fee

required under 37 CFR 1.17(i).

During a telephone conversation with Kelly K. Kordzik on 03/29/06 a

provisional election was made without traverse to prosecute the invention of

Group I, claims 1-5, 7-8 and 10-11. Affirmation of this election must be made by applicant in replying to this Office action. Claim 9 is withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Response to Arguments

Applicant's argument were carefully considered and found persuasive. However, the new search has resulted in newly discovered prior art. New grounds of rejection based on the newly discovered prior art follow below.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the objects claimed in claims 7-8: a network connected home environment with the security-critical resources including security-critical devices managed by application programs running on a first data processing unit connected with a second data processing unit via a data communications link, a gateway component for controlling communications across the link and Internet connected the second data processing unit must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is

being amended. The figure or figure number of an amended drawing should not
be labeled as "amended." If a drawing figure is to be canceled, the appropriate
figure must be removed from the replacement sheet, and where necessary, the
remaining figures must be renumbered and appropriate changes made to the
brief description of the several views of the drawings for consistency. Additional
replacement sheets may be necessary to show the renumbering of the remaining
figures. Each drawing sheet submitted after the filing date of an application must
be labeled in the top margin as either "Replacement Sheet" or "New Sheet"
pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,
the applicant will be notified and informed of any required corrective action in the
next Office action. The objection to the drawings will not be held in abeyance.

1. Claims 1-5, 7-8 and 10-11 have been examined.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

2. Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being
indefinite for failing to particularly point out and distinctly claim the subject
matter that applicant regards as the invention.

3. In claims 1 and 3 the following lack antecedent basis:

    a. Claim 1: "communications apparatus"

       b. Claim 3: "the gateway component of the first data processing unit"

4. Claim 3 recites "the gateway component of the first data processing unit",

however, the independent claim 1 suggests that there is only one "a gateway

component" for controlling communications across the data communication

link. Thus, it is not clear whether claim 3 introduces an additional gateway

component or whether it refers to the same component and implies that the

component is implemented on the first data processing unit. For purposes of

further examination the phrase is treated as best understood.

5. Claims 2, 4 and 5 are rejected by virtue of their dependence

Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

6. Claims 1-2, 4 and 10-11 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Nathanson (U.S. Patent No 6263268) in view of

Richardson (U.S. Patent No 6427202).

Nathanson teaches a system 10 incorporated in a vehicle (Fig. 1, col. 2 lines

31-33).

7. As per claims 1 and 10 Nathanson discloses a first data processing unit (15)

connected to device control units of the vehicle (Fig. 1 and col. 2 lines 31-38

and col. 4 lines 28-33), a second data processing unit (60) connected to

communications apparatus providing a wireless connection (35) to an

external network (e.g. Internet, Fig. 1 and col. 3 lines 20-22 and col. 4 lines 4-

16), such that operation requests can be received at the second data

processing unit from the external network (Fig. 1, col. 3 lines 20-22 and col. 4

lines 4-16), a data communications link between the first and second data

processing units (Fig. 1 and col. 2 lines 19-21).

Nathanson teach communication across the data communication link (col. 3

lines 1-16) but do not teach a gateway component for controlling

communications across the data communications link, the gateway

component limiting passing of the operation requests from the second data

processing unit to the vehicle's device control units to only a predefined set of

permitted operations.

Richardson teaches a gateway limiting the operations which can be

performed at the first data processing unit in response to requests from the

second processing unit to only a predefined set of permitted operation (col. 5

lines 49-59).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement limiting the operations which can be

performed at the first data processing unit in response to requests from the

second processing unit to only a predefined set of permitted operation given

the benefit of increased security.

8. As per claim 11 the secure resources include the vehicle's internal device

control units (col. 2 lines 34-36).

9. As per claim 2 Nathanson in view of Richardson do not explicitly teach

discarding non-permitted operation requests. However, any data (including

operation requests) require (tight up) computing resources and as a result

discarding non-permitted operation requests would have been obvious

modification given the benefit of saving unnecessary use of resources.

10. As per claim 4 Nathanson in view of Richardson teach the second data

processing unit and the gateway component limiting passing of the operation

requests from the second data processing unit to the vehicle's device control

units to only a predefined set of permitted operations as discussed above.

Nathanson in view of Richardson does not teach a gateway component in the

second data processing unit that compares all operation requests on the first

data processing unit and one or more access control list (ACL) in the second

data processing unit defining which operation requests are permitted for

particular requestors.

Official Notice is taken that it is old and well-known practice to use ACLs to

define which operation requests are permitted for particular requestor and

that implementation of ACL requires a component comparing the requests

with the ACL's entries. Thus, it would have been obvious to one of ordinary

skill in the art at the time of applicant's invention to incorporate ACL defining

which operation requests are permitted for particular requestors and a

gateway component that compares all operation requests given the benefit of

selective access control to the secure resources.

11. Claims 3 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Nathanson (U.S. Patent No 6263268) in view of Richardson (U.S. Patent

No 6427202) and in further view of Serughett (Marc Serughett, "OSEK: a

super-small kernel for deeply embedded applications?", 1999).

Nathanson in view of Richardson teach the first data processing unit the

gateway component implemented in a vehicle as discussed above.

Nathanson in view of Richardson is silent in regard to the operating system

implemented in the vehicle and as a result there is not disclosure of the first

data processing unit and the gateway component running in the static

operating system environment.

In its publication Serughett teaches the OSEK/VDX static operating system

and discloses various benefits of OSEK.

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to run the first data processing unit and the gateway

component running the static operating system as taught by Serughett given

the various benefit disclosed by Serughett: reliability, minimal resource usage,

highly efficient scheduling, etc.

12. As per claim 5 OSKE/VDX taught by Serughett is a RTOS and other

limitations of claim 5 are substantially equivalent to the limitations of claim 2-

3; therefore these limitations are similarly rejected.

13. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bassett (U.S. Patent No 5706191) in view of Richardson (U.S. Patent No

6427202).

Bassett teach a first data processing unit (an appliance interface module,

AIMs, 70-78) connected to one or more security critical resources (water

heater 71, gas meter 50, etc.) and a second processing unit (controller 15,

Fig. 1) connected to an external communications network (Fig. 6, col. 12 lines

41-57) such that operation request can be received from the external network

(col. 12 lines 41-57) a data communication link between the first and second

data processing units (wiring system 20, Fig. 1, col. 5 lines 25-27), wherein

the first and second data processing units and the link between them are

implemented within a network-connected home environment (Fig. 1), and the

security-critical resources include security-critical devices within the home

which are managed by application programs running on the first data

processing unit (Fig. 15, col. 9 lines 29-34 and line 51-67).

Bassett does not explicitly name a gateway component for controlling

communications across the link but (see, col. 14 lines 25-31) it is clear that

some kind of gateway component (e.g. a processor) is present in Bassett'

invention in order to enable communication between the external network and

the first data processing unit.

Bassett does not teach the gateway component limiting the operations which

can be performed at the first data processing unit in response to requests

from the second processing unit to only a predefined set of permitted operation.

Richardson teaches a gateway limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation (col. 5 lines 49-59).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to implement limiting the operations which can be performed at the first data processing unit in response to requests from the second processing unit to only a predefined set of permitted operation given the benefit of increased security.

14. As per claim 8 Bassett in view of Richardson do not teach that the external network is the Internet. However, utilizing Internet as an external network is an obvious variation that is well known in the art. One would have been motivated to use them especially in light of the benefits of Internet as evidenced by Internet commercial success.

15. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bassett (U.S. Patent No 5706191) in view of Pfleeger (Charles P. Pfleeger, "Security in computing", 2nd edition, 1996, ISBN: 0133374866).

Bassett teach a first data processing unit (an appliance interface module, AIMs, 70-78) connected to one or more security critical resources (water heater 71, gas meter 50, etc.) and a second processing unit (controller 15, Fig. 1) connected to an external communications network (Fig. 6, col. 12 lines

41-57) such that operation request can be received from the external network

(col. 12 lines 41-57) a data communication link between the first and second

data processing units (wiring system 20, Fig. 1, col. 5 lines 25-27), wherein

the first and second data processing units and the link between them are

implemented within a network-connected home environment (Fig. 1), and the

security-critical resources include security-critical devices within the home

which are managed by application programs running on the first data

processing unit (Fig. 15, col. 9 lines 29-34 and line 51-67).

Bassett does not explicitly name a gateway component for controlling

communications across the link but (see, col. 14 lines 25-31) it is clear that

some kind of gateway component (e.g. a processor) is present in Bassett'

invention in order to enable communication between the external network and

the first data processing unit.

Bassett does not teach the gateway component limiting the operations which

can be performed at the first data processing unit in response to requests

from the second processing unit to only a predefined set of permitted

operation

Pfleeger teaches a gateway (firewall) limiting the operations which can be

performed at the first data processing unit in response to requests from the

second processing unit to only a predefined set of permitted operation (pg.

427-434).

It would have been obvious to one of ordinary skill in the art at the time of

applicant's invention to implement limiting the operations which can be

performed at the first data processing unit in response to requests from the

second processing unit to only a predefined set of permitted operation given

the benefit of increased security.

16. As per claim 8 Bassett in view of Pfleeger do not teach that the external

network is the Internet. However, utilizing Internet as an external network is

an obvious variation that is well known in the art. One would have been

motivated to use them especially in light of the benefits of Internet as

evidenced by Internet commercial success.

Conclusion

The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

Korean Patent No 0153605 "Remote vehicle management system" published

on May 30, 1997.

Any inquiry concerning this communication or earlier communications

from the examiner should be directed to Peter Poltorak whose telephone

number is (571) 272-3840. The examiner can normally be reached Monday

through Thursday from 9:00 a.m. to 4:00 p.m. and alternate Fridays from

9:00 a.m. to 3:30 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Jacques Louis Jacques can be reached on (571)272-

6962. The fax phone number for the organization where this application or

proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained

from the Patent Application Information Retrieval (PAIR) system. Status

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available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on

access to the Private PAIR system, contact the Electronic Business Center

(EBC) at 866-217-9197 (toll-free).

3/29/06